

## Claims

What is claimed is:

1           1. An awning for mounting on a wall, said  
2         awning comprising:  
3            a roll-up tube;  
4            a drive assembly at least partially inserted  
5         into said roll-up tube for deploying and retracting  
6         said awning; and  
7            a solar panel for generating electrical power  
8         for powering said drive assembly.

1           2. The awning of claim 1, further comprising a  
2         rechargeable battery for storing said electrical power  
3         and for powering said drive assembly.

1           3. The awning of claim 1, wherein said solar panel  
2         is fixedly mounted on the wall.

1           4. The awning of claim 1 for installing on a  
2         building or vehicle, wherein no connection to an  
3         electrical system of the building or vehicle is necessary  
4         to operate said awning.

1           5. An awning comprising:  
2            a roll-up tube;  
3            a canopy attached to said roll-up tube;  
4            a drive assembly for deploying or retracting said  
5         awning;  
6            a solar panel fixedly mounted on a wall for  
7         generating electrical power for powering said drive  
8         assembly.

1       6. The awning of claim 5, wherein said motorized  
2 drive assembly is at least partially inserted into said  
3 roll-up tube.

1       7. The awning of claim 5, further comprising a  
2 rechargeable battery for storing said electrical power  
3 for powering said drive assembly.

1       8. The awning of claim 5, further including a wall  
2 mounting assembly fixedly mounted on the wall, wherein  
3 said roll-up tube is rotatably fixed to said wall  
4 mounting assembly.

1       9. The awning of claim 5 for installing on a  
2 building or vehicle, wherein no connection to an  
3 electrical system of the building or vehicle is necessary  
4 to operate said awning.

1       10. An awning comprising:  
2            a wall mounting assembly fixed to a wall, said wall  
3            mounting assembly including a roll-up tube rotatably  
4            attached to said wall mounting assembly;  
5            a canopy rod;  
6            a canopy having an inner end connected to said roll-  
7            up tube and an outer end connected to said canopy rod;  
8            a support arm including:  
9              a first end connected to the wall;  
10             a second end connected to said canopy rod;  
11             at least one joint assembly between said first  
12            end and said second end; and  
13             a biasing spring for biasing said support arm  
14            outward from the wall about said joint assembly;

15       a drive assembly for deploying or retracting said  
16 awning;

17       a rechargeable battery for providing electrical  
18 power for powering said drive assembly; and  
19       a solar panel for generating electrical power for  
20 storing in said rechargeable battery and/or for powering  
21 said drive assembly.

1       11. The awning of claim 10, wherein said solar  
2 panel is fixedly mounted on one of the wall or said wall  
3 mounting assembly.

1       12. The awning of claim 11, wherein said drive  
2 assembly is at least partially inserted into said roll-up  
3 tube.

1       13. The awning of claim 10, wherein said drive  
2 assembly is at least partially inserted into said roll-up  
3 tube.

1       14. The awning of claim 10 for installing on a  
2 building or vehicle, wherein no connection to an  
3 electrical system of the building or vehicle is necessary  
4 to operate said awning.

1       15. An awning comprising:  
2           a wall mounting assembly fixed to a wall;  
3           a first and a second support arm each connected to  
4 the wall;  
5           a roll-up tube rotatably attached to said first  
6 support arm at one end of said tube;

7       a canopy having an inner end connected to said wall  
8   mounting assembly and an outer end connected to said  
9   roll-up tube;

10       a drive assembly attached to said second support arm  
11  and at least partially inserted into another end of said  
12  roll-up tube for deploying or retracting said awning;

13       a rechargeable battery for providing electrical  
14  power for powering said drive assembly; and

15       a solar panel for generating electrical power for  
16  storing in said rechargeable battery and/or for powering  
17  said drive assembly.

1       16. The awning of claim 15, wherein said solar  
2  panel is fixedly mounted on said wall mounting assembly.

1       17. The awning of claim 15 for mounting on a wall  
2  of a building or vehicle, wherein no connection to an  
3  electrical system of the building or vehicle is necessary  
4  to operate said awning.

1       18. An awning comprising:  
2       a roll-up tube rotatably fixed to a wall;  
3       a canopy rod;  
4       a canopy having an inner end connected to said roll-  
5  up tube and an outer end connected to said canopy rod;  
6       a support arm including:  
7        a first end connected to the wall;  
8        a second end connected to said canopy rod;  
9        at least one joint assembly; and  
10      a biasing spring for biasing said support arm  
11     outward from the wall about said joint assembly;

12        a drive assembly at least partially inserted into  
13    said roll-up tube for deploying or retracting said  
14    awning;

15        a rechargeable battery for providing electrical  
16    power for powering said drive assembly; and

17        a solar panel for generating electrical power for  
18    storing in said rechargeable battery and/or for powering  
19    said drive assembly.

1            19. The awning of claim 18 for installing on a  
2 building or vehicle, wherein no connection to an  
3 electrical system of the building or vehicle is necessary  
4 to operate said awning.

1            20. An awning comprising:

2        a wall mounting assembly mounted on a wall;

3        a first and a second support arm each attached to  
4 the wall;

5        a roll-up tube having one end connected to said  
6 first support arm;

7        a canopy having an inner end connected to said wall  
8 mounting assembly and an outer end connected to said  
9 roll-up tube;

10        a drive assembly attached to said second support arm  
11 and at least partially inserted into another end of said  
12 roll-up tube for deploying or retracting said awning;

13        a rechargeable battery for providing electrical  
14 power for powering said drive assembly; and

15        a solar panel fixedly mounted on said wall mounting  
16 assembly for generating electrical power for storing in  
17 said rechargeable battery and/or for powering said drive  
18 assembly.

1       21. The awning of claim 20 for installing on a  
2 building or vehicle, wherein no connection to an  
3 electrical system of the building or vehicle is necessary  
4 to operate said awning.

1       22. An awning comprising:  
2            a roll-up tube rotatably fixed to a wall;  
3            a canopy rod;  
4            a canopy having an inner end connected to said roll-  
5 up tube and an outer end connected to said canopy rod,  
6 wherein said canopy can be wound on said roll-up tube by  
7 rotating said tube in a wind direction for retracting  
8 said awning and unwound from said roll-up tube by  
9 rotating said tube in an unwind direction to deploy said  
10 awning;  
11           at least two support arms, each support arm  
12 including:  
13              a first end connected to the wall;  
14              a second end connected to said canopy rod; and  
15              at least one joint assembly, wherein at least  
16 one support arm further includes a biasing spring  
17 for biasing said support arm outward from the wall  
18 about said joint assembly;  
19            wherein said outward biasing of said support arms  
20 tends to deploy said awning and keep said canopy taught  
21 when said roll-up tube is rotated in an unwind direction  
22 to deploy said awning;  
23            a motorized drive assembly at least partially  
24 inserted into said roll-up tube, wherein said drive  
25 assembly is for winding or unwinding said roll-up tube;  
26            a rechargeable battery for providing electrical  
27 power to said drive assembly; and

28           a solar panel for generating electrical power for  
29        storing in said rechargeable battery and/or for powering  
30        said drive assembly.

1           23. The awning of claim 22 for installing on a  
2        building or vehicle, wherein no connection to an  
3        electrical system of the building or vehicle is necessary  
4        to operate said awning.

1           24. The awning of claim 22, wherein said solar  
2        panel is fixedly mounted on the wall.

1           25. An awning comprising:  
2            a wall mounting assembly fixed to a wall;  
3            a roll-up tube rotatably fixed to said wall mounting  
4        assembly;  
5            a canopy rod;  
6            a canopy having an inner end connected to said roll-  
7        up tube and an outer end connected to said canopy rod,  
8        wherein said canopy can be wound on said roll-up tube by  
9        rotating said tube in a wind direction for retracting  
10      said awning and unwound from said roll-up tube by  
11      rotating said tube in an unwind direction to deploy said  
12      awning;  
13           at least two support arms, each support arm  
14        including:  
15            a first end connected to the wall;  
16            a second end connected to said canopy rod; and  
17            at least one joint assembly;  
18            a motorized drive assembly at least partially  
19        inserted into said roll-up tube and rotationally  
20        connected to said roll-up tube, wherein said drive

21 assembly is for winding or unwinding said roll-up tube to  
22 deploy or retract said awning;  
23       a rechargeable battery for providing electrical  
24 power to said drive assembly; and  
25       a solar panel fixedly mounted on said wall mounting  
26 assembly for generating electrical power for storing in  
27 said rechargeable battery and/or for powering said drive  
28 assembly.

1           26. The awning of claim 25 for installing on a  
2 building or vehicle, wherein no connection to an  
3 electrical system of the building or vehicle is necessary  
4 to operate said awning.

1           27. An awning comprising:  
2            a roll-up tube;  
3            a drive assembly at least partially inserted  
4            into said roll-up tube for deploying and retracting  
5            said awning; and  
6            a support arm connected to a wall, said support  
7            arm including a spring for biasing said support arm  
8            in an outward direction to deploy said awning.

1           28. The awning of claim 27, wherein said spring is  
2 a torsion spring.

1           29. The awning of claim 27, wherein said spring is  
2 a linear spring.

1           30. The awning of claim 27, further comprising a  
2 solar panel for generating electrical power for powering  
3 said drive assembly.

1       31. The awning of claim 30, further comprising a  
2 rechargeable battery for storing said electrical power  
3 and for powering said drive assembly.

1       32. The awning of claim 32, wherein said solar  
2 panel is fixedly mounted on the wall.